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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/538,536	06/10/2005	Wolfgang Rohde	LU 6075 (US)	4252
24114 7590 11/06/2009 LyondellBasell Industries 3801 WEST CHESTER PIKE NEWTOWN SQUARE, PA 19073				
EXAMINER				
NGUYEN, CAM N				
ART UNIT		PAPER NUMBER		
1793				
MAIL DATE		DELIVERY MODE		
11/06/2009		PAPER		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/538,536

**Applicant(s)**

ROHDE ET AL.

**Examiner**

Cam N. Nguyen

**Art Unit**

1793

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 07/13/09 (an appeal brief).  
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-10 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
6) ☒ Claim(s) 1-10 is/are rejected.  
7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.  
10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☒ All b) ☐ Some \* c) ☐ None of:  
1. ☒ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)  
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3) ☐ Information Disclosure Statement(s) (PTO/CDC)  
Paper No(s)/Mail Date \_\_\_\_\_  
4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_  
5) ☐ Notice of Informal Patent Application  
6) ☐ Other: \_\_\_\_\_

### **DETAILED ACTION**

#### **Withdrawal of Finality of Last Office Action**

1. Applicant's request for reconsideration of the finality of the rejection of the last Office action is persuasive and, therefore, the finality of that action is withdrawn.

#### **Response to Appeal Brief**

2. Applicants' appeal brief filed on 05/26/09 and 07/13/09 have been reviewed and considered. The rejection made under a 102(b) over McDaniel (US Pat. 4,301,034) has been withdrawn and replaced thereof a new ground of rejection over an applicable prior art under a 103 as follows.

#### **Specification**

3. The examiner has not checked the specification to the extent necessary to determine the presence of **all** possible minor errors (grammatical, typographical, and idiomatic). Cooperation of the applicant(s) is requested in correcting any errors of which applicant(s) may become aware of in the specification, in the claims and in any further amendment(s) that applicant(s) may file.

Applicant(s) is also requested to complete the status of the copending applications referred to in the specification by their Attorney Docket Number or Application Serial Number, **if any**.

The status of the parent application(s) and/or any other application(s) cross-referenced to this application, **if any**, should be updated in a timely manner.

**Claim Rejections - 35 USC § 103**

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

**Claims 1-10** are rejected under 35 U.S.C. 103(a) as being unpatentable over “**McDaniel ‘034’** (US Pat. 4,301,034) **in view of** “**Slaugh ‘999’** (US Pat. 4,295,999).

**McDaniel ‘034** discloses a method of preparing a catalyst comprising: combining a silicate ester and water by slowly adding said ester and said water to a solvent-water-sulfuric acid catalyst mixture which mixture contains said solvent in an amount within the range of 0.1 to 10 volume percent ....., after the hydrolysis is complete adding an alcohol soluble titanium compound, thereafter adding additional water and holding at an elevated temperature for 1 to 5 hours to permit particle growth, adding a chromium compound soluble in the reaction mixture and thereafter introducing ammonia to bring about gelation, thereafter aging at reflux temperature for 1 to 2 hours, removing the water and solvent and drying the resulting silica (see col. 13- col. 14, claim 42). The solvent is alcohol and suitable alcohol solvents including methanol (see col. 14, claim 46 & col. 2, ln 51). The method further comprising activating the silica resulting after said water and solvent have been separated by heating in air at a temperature within the range of 315 to 760°C (see col. 14, claim 43). Suitable chromium compounds including chromium III nitrate (see col. 5, ln 40). Suitable titanium compounds including titanium tetraisopropoxide (see col. 14, claim 44). See also Example I at col. 7 of the reference, which teaches to use 18 g of water and 107.5 g of 2-butanol (solvent), which provides for about

16% of water, which meets the claimed water content being required in the instant claim 1. In an alternative embodiment, McDaniel discloses “alternatively, chromium and/or titanium can be added after the material (silica gel) is dried, preferably by means of an anhydrous impregnation or simple physical mixing with the resulting xerogel. For instance, an anhydrous solution of a titanium compound such as a titanium alkoxide can be used to incorporate titanium into the dried silica. Similarly, an anhydrous solution of chromium compound soluble in nonaqueous solvents such as hydrocarbons can be added to the dried silica (xerogel). See col. 5, ln 57-65. See also entire reference for further details.

First, *McDaniel '034* teaches that the chromium and/or titanium can be added to the dried silica, which “silica” is the same support material as being required in the instant claims 1, 2, 7-8, & 10. To further support the Examiner's position regarding the silica support material (or silica xerogel) used in the process of *McDaniel '034*, if Applicants still do not think that the silica xerogel of the reference is not in the form of a support or it has not yet formed into a support prior to and when contacting with the titanium and chromium compound, then the following applies. It would have been *prima facie obvious* to one of ordinary skill in the art at the time the invention was made to have utilized a known “silica support material” in the process of *McDaniel '034* to make a catalyst because “silica” is a known and useful catalyst support material, as evidenced by *Slaugh '999* (see *Slaugh '999* at col. 10, claim 1).

Second, the different between the claimed process and the disclosed process, is that the disclosed process does not teach to contact the silica support with a protic medium having a water content of less than 20% by weight having contained therein a titanium compound and a chromium compound. However, it would have also been obvious to one of ordinary skill in the

art at the time the invention was made to have utilized such known protic medium (solvent) in the step of contacting the silica xerogel with the titanium and chromium compounds in the process of *McDaniel '034* because he teaches to use the same solvent during the hydrolysis step (See Example I at col. 7, col. 14, claim 46, & col. 2, ln 51).

**Response to Applicants' Arguments**

5. The remarks in the brief filed on 07/13/09 has been fully considered, but not deemed persuasive in view of the new ground of rejection(s) and/or objection(s) above.

**Conclusion**

6. Claims 1-10 are pending. Claims 1-10 are rejected. No claims are allowed.

**Contacts**

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Primary Examiner CAM N. NGUYEN, whose telephone number is 571-272-1357. The examiner can normally be reached on M-F, 9:00 AM - 6:30 PM, at alternative work site.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stanley Silverman, can be reached on 571-272-1358. The fax phone number for the organization where this application or proceeding is assigned is 571-272-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Cam N. Nguyen/

Primary Examiner

Art Unit: 1793

/C. N. N./

November 04, 2009